



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,102	03/03/2004	Charles E. Cadwell	FIS0001	4095
27187	7590	10/31/2006		
BAKER & DANIELS LLP 205 W. JEFFERSON BOULEVARD SUITE 250 SOUTH BEND, IN 46601			EXAMINER LAUX, JESSICA L	
			ART UNIT	PAPER NUMBER
			3635	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/792,102	CADWELL ET AL.	
	Examiner	Art Unit	
	Jessica Laux	3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 8-10, 18-20 and 23-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11-17, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06/21/2004, 07/28/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-22 drawn to a composite pole, classified in class 52, subclass 730.1.
- II. Claims 23-26, drawn to a method of forming a composite pole, classified in class 264, subclass 171.1.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as injection molding.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

This application contains claims directed to the following patentably distinct species:

Species I – the embodiment of figure 1

Species II – the embodiment of figure 2

Species III – the embodiment of figure 3.

The species are independent or distinct because each species is drawn to a different composite pole construction having a different interior configuration.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 1 and 12 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

During a telephone conversation with Eric Groen on October 5, 2006 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-22 with a further species election of Species I, claims 1-7, 11-17, 21-22. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7-9, 17-19 and 23-26 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Art Unit: 3635

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

Claims 5 and 15 are objected to because of the following informalities: There is lack of antecedent basis in the claims for the limitation "said radially extending fins". It is suggested to change "fins" to "ribs". Appropriate correction is required.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 12-15 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Mirmiran et al. (6123485).

Regarding claim 1: Mirmiran et al. discloses an elongate composite pole, or the like, comprising: a structural elongate member (30) having an outer tubular member (34), defining an elongate closed area; a strengthening material substantially filling said elongate closed area (38, figure 1C; Col. 4, line 55); and an outer casing (34), comprised of a deformable composite material, deposited on the outside of said outer tubular member (figures 1; Col. 4, lines 51-52).

Art Unit: 3635

Regarding claim 2: The elongate composite pole of claim 1, wherein said structural elongate member further comprises an inner web of strengthening members (36), defining a plurality of elongate closed columnar areas (figure 1C).

Regarding claim 3: The elongate composite pole of claim 2, wherein said outer tubular member is cylindrical (figure 1C).

Regarding claim 4: The elongate composite pole of claim 3, wherein said strengthening members are defined as radially extending ribs (36, figure 1C).

Regarding claim 5: The elongate composite pole of claim 4, wherein said structural elongate member is comprised of two substantially concentric cylindrical members (34 and 37; Col. 5, lines 37-43) interconnected by, said radially extending fins (figure 1C).

Regarding claim 12: Mirmiran et al. discloses an elongate composite pole, or the like, comprising: a structural elongate member (30) having an outer tubular member (34), and an inner web of strengthening members (36) defining a plurality of elongate closed columnar areas (figure 1C); a strengthening material (38, figure 1C; Col. 4, line 55) substantially filling at least some of said closed columnar areas; and an outer casing (34) deposited on the outside of said outer tubular member.

Regarding claim 13: The elongate composite pole of claim 12, wherein said outer tubular member is cylindrical (figure 1C; Col. 5, line 40-43).

Regarding claim 14: The elongate composite pole of claim 13, wherein said strengthening members are defined as radially extending ribs (figure 1C).

Art Unit: 3635

Regarding claim 15: The elongate composite pole of claim 14, wherein said structural elongate member is comprised of two substantially concentric cylindrical members (34 and 37; Col. 5, lines 37-43) interconnected by, said radially extending fins.

Regarding claim 21: The elongate composite pole of claim 12, wherein the outer casing is comprised of a deformable composite material (Col. 6, lines 40-43; which are deformable materials as they are wrapped around the pole).

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hubbell et al. (6409433).

Regarding claim 1: An elongate composite pole, or the like, comprising: a structural elongate member having an outer tubular member (6), defining an elongate closed area; a strengthening material (4) substantially filling said elongate closed area; and an outer casing (8), comprised of a deformable composite material, deposited on the outside of said outer tubular member.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mirmiran (6123485) in view of Cahill (20020177663).

Regarding claims 11 and 22: Mirmiran discloses the elongate composite pole of claims 1 and 21 above but does not disclose that the outer casing is comprised of a composite material of 40%-60% by volume polyethylene and 60%-40% by volume ground rubber particles and instead discloses that the outer casing can be formed from combinations of fiber and resin (Col. 6, lines 40-43). Cahill discloses a combination of polyethylene resin with ground rubber particles (as the fiber) for use in poles and other injection molded or extruded products (paragraph 0015). The combination of polyethylene and rubber taught by Cahill includes 5-95% polyethylene (which includes values that fall in the range of 40-60%) and 5-50% rubber (which includes values that fall in the range of 60-40%) (paragraph 0022). At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the outer casing of Mirmiran to be a combination of polyethylene and rubber as taught by Cahill as such a modification would be structurally and functionally equivalent to the casing of Mirmiran (as disclosed by Mirmiran) and would additionally benefit the environment as well as being economical choice (Cahill, paragraph 0010).

Claims 2-7 and 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubbell et al. (6409433).

Regarding claims 2-5: Hubbell discloses the elongate composite pole of claim 1, where the outer tubular member is cylindrical (figure 1), but does not disclose that the structural elongate member further comprises an inner web of strengthening members, defined as radially extending ribs that interconnect two concentric circles (where Hubbell does disclose a second, inner, tubular member, element 2), and further defining

Art Unit: 3635

a plurality of elongate closed columnar areas. It would have been obvious to one of ordinary skill in the art to modify the structure of Hubbell to have radially extending ribs as it is well known to have ribs interconnecting to concentric circular tubes (as referenced by Mirmiran (6123485), figure 1C) to maintain the spacing between the tubes and provide additional support.

Regarding claim 6: The elongate composite pole of claim 5 wherein the volume within an inner one of said two substantially concentric cylindrical members is left unfilled (figure 1; Col. 5, line 63 - Col. 6, line 4) for a wiring passageway.

Regarding claim 7: The elongate composite pole of claim 6, wherein said strengthening material is concrete (Col. 6, lines 6-8 where concrete is specified as a material).

Regarding claims 12-15: Hubbell discloses an elongate composite pole, or the like, comprising: a structural elongate member having an outer cylindrical tubular member (6), a strengthening material (4) substantially filling at least some of said closed columnar areas; and an outer casing (8) deposited on the outside of said outer tubular member but does not disclose that the composite member has an inner web of strengthening members, defined as radially extending ribs that interconnect two concentric circular tubular members (where Hubbell does disclose an inner tubular member, element 2) and further defining a plurality of elongate closed columnar areas. It would have been obvious to one of ordinary skill in the art to modify the structure of Hubbell to have radially extending ribs as it is well known to have ribs interconnecting to

Art Unit: 3635

concentric circular tubes (as referenced by Mirmiran (6123485), figure 1C) to maintain the spacing between the tubes and provide additional support.

Regarding claim 16: The elongate composite pole of claim 15 wherein the volume within an inner one of said two substantially concentric cylindrical members is left unfilled (figure 1; Col. 5, line 63 - Col. 6, line 4) for a wiring passageway.

Regarding claim 17: The elongate composite pole of claim 16, wherein said strengthening material is concrete (Col. 6, lines 6-8 where concrete is specified as a material).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica Laux whose telephone number is 571-272-8228. The examiner can normally be reached on Monday thru Friday, 8:30am to 4:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Naoko Slack can be reached on 571-272-6848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3635

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



JL
10/17/2006



NAOKO SLACK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600